

CLAIMS

What is claimed is:

sub 12
1. A method comprising:

processing a polymer selected from the group consisting of a precursor to an electrically conductive polymer and an electrically conductive polymer in a solvent comprising a fluorinated solvent.

2. A method according to claim 1 wherein said polymer is in a solution of said fluorinated solvent and less than about 20 weight % of said solution.

3. A method according to claim 1 wherein said precursor polymers to said electrically conductive polymers are selected from the group consisting of ~~substituted and unsubstituted~~ polyparaphenylenes, polyparaphenylevevinylenes, polyanilines, polyazines, polythiophenes, polythianaphthenes, polyphenylenesulfides, polyfuranes, polypyrroles, polyselenophenes, polyacetylenes and combinations thereof and copolymers of monomers thereof.

4. A method according to claim 1 wherein said processing is selected from the group consisting of synthesizing said polymer in said solvent and solvating said polymer in said solvent.

5. A method according to claim 1 wherein said polymer is a precursor to an electrically conductive polymer and exposed to said solvent while said precursor is exposed to a dopant.

6. A method of forming a polymer selected from group consisting of a precursor to an electrically conductive polymer and an electrically conductive polymer comprising: exposing a solution of polymerizable units to a solvent comprising a fluorinated solvent during polymerization to form said polymer.

Sub A6
7. A method comprising:
polymerizing monomers in the presence of a solvent comprising a fluorinated solvent to form an electrically conductive polymer; during neutralization of said electrically conductive polymer to an undoped form to form a deaggregated nondoped form of said electrically conductive polymer.

8. A method according to claim 1 wherein said solvent comprises a combination of said fluorinated solvent and a nonfluorinated solvent.

9. A method according to claim 1 wherein said polymer is in a solution and is less than about 5 weight percent of said solution.

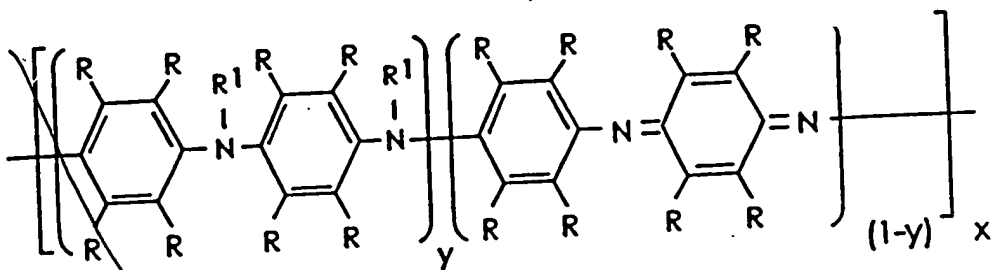
10. A method according to claim 6 wherein said polymerizable units are selected from the group consisting of one or more of monomers and oligomers.

11. A method according to claim 1 wherein said polymer is in a form selected from the group consisting of a solution and a solid state.

Sub A7
12. A method according to claim 1 wherein

13. A method according to claim 1 wherein said polymer is a polyaniline.

14
21. A method according to claim 1 wherein said polymer is polyaniline having structural formula:



wherein each R can be H or any organic or inorganic radical; each

R can be the same or different; wherein each R

sup 1

can be H or any organic or inorganic radical, each R

sup 1

can be the same or different;

$x \geq 1$

; preferably

$x \geq 2$

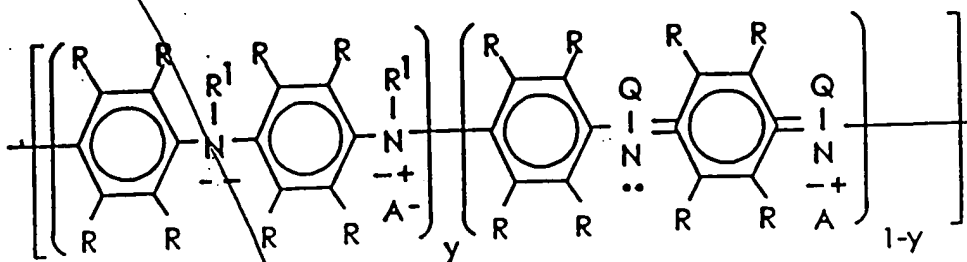
; y has a value of 0.5 or said nonreduced or nonoxidized form; y

has a value from greater than 0.5 to 1 for said reduced form and

y has a value from less than 0.5 to 0 said oxidized form.

15.
22. A method according to claim 1 wherein said polymer is a

polyaniline having structural formula:



wherein each R can be H or any organic or inorganic radical; each

R can be the same or different; wherein each R

sup 1

can be H or any organic or inorganic radical, each R

sup 1

can be the same or different;

$x \geq 1$

; preferably

$x \geq 2$

55
A8

has a value from greater than 0.5 to 1 for said reduced form and

16/23

23. A method according to claim 1 wherein said solvent comprises more than one fluorinated solvent.

~~24~~

$$\frac{18}{25}$$

19
~~25.~~

[Handwritten signature]

1. **Introduction**
 2. **Background**
 3. **Methodology**
 4. **Results**
 5. **Discussion**
 6. **Conclusion**
 7. **References**
 8. **Appendix**
 9. **Index**
 10. **Table of Contents**
 11. **Figure 1**
 12. **Figure 2**
 13. **Figure 3**
 14. **Figure 4**
 15. **Figure 5**
 16. **Figure 6**
 17. **Figure 7**
 18. **Figure 8**
 19. **Figure 9**
 20. **Figure 10**
 21. **Figure 11**
 22. **Figure 12**
 23. **Figure 13**
 24. **Figure 14**
 25. **Figure 15**
 26. **Figure 16**
 27. **Figure 17**
 28. **Figure 18**
 29. **Figure 19**
 30. **Figure 20**
 31. **Figure 21**
 32. **Figure 22**
 33. **Figure 23**
 34. **Figure 24**
 35. **Figure 25**
 36. **Figure 26**
 37. **Figure 27**
 38. **Figure 28**
 39. **Figure 29**
 40. **Figure 30**
 41. **Figure 31**
 42. **Figure 32**
 43. **Figure 33**
 44. **Figure 34**
 45. **Figure 35**
 46. **Figure 36**
 47. **Figure 37**
 48. **Figure 38**
 49. **Figure 39**
 50. **Figure 40**
 51. **Figure 41**
 52. **Figure 42**
 53. **Figure 43**
 54. **Figure 44**
 55. **Figure 45**
 56. **Figure 46**
 57. **Figure 47**
 58. **Figure 48**
 59. **Figure 49**
 60. **Figure 50**
 61. **Figure 51**
 62. **Figure 52**
 63. **Figure 53**
 64. **Figure 54**
 65. **Figure 55**
 66. **Figure 56**
 67. **Figure 57**
 68. **Figure 58**
 69. **Figure 59**
 70. **Figure 60**
 71. **Figure 61**
 72. **Figure 62**
 73. **Figure 63**
 74. **Figure 64**
 75. **Figure 65**
 76. **Figure 66**
 77. **Figure 67**
 78. **Figure 68**
 79. **Figure 69**
 80. **Figure 70**
 81. **Figure 71**
 82. **Figure 72**
 83. **Figure 73**
 84. **Figure 74**
 85. **Figure 75**
 86. **Figure 76**
 87. **Figure 77**
 88. **Figure 78**
 89. **Figure 79**
 90. **Figure 80**
 91. **Figure 81**
 92. **Figure 82**
 93. **Figure 83**
 94. **Figure 84**
 95. **Figure 85**
 96. **Figure 86**
 97. **Figure 87**
 98. **Figure 88**
 99. **Figure 89**
 100. **Figure 90**
 101. **Figure 91**
 102. **Figure 92**
 103. **Figure 93**
 104. **Figure 94**
 105. **Figure 95**
 106. **Figure 96**
 107. **Figure 97**
 108. **Figure 98**
 109. **Figure 99**
 110. **Figure 100**
 111. **Figure 101**
 112. **Figure 102**
 113. **Figure 103**
 114. **Figure 104**
 115. **Figure 105**
 116. **Figure 106**
 117. **Figure 107**
 118. **Figure 108**
 119. **Figure 109**
 120. **Figure 110**
 121. **Figure 111**
 122. **Figure 112**
 123. **Figure 113**
 124. **Figure 114**
 125. **Figure 115**
 126. **Figure 116**
 127. **Figure 117**
 128. **Figure 118**
 129. **Figure 119**
 130. **Figure 120**
 131. **Figure 121**
 132. **Figure 122**
 133. **Figure 123**
 134. **Figure 124**
 135. **Figure 125**
 136. **Figure 126**
 137. **Figure 127**
 138. **Figure 128**
 139. **Figure 129**
 140. **Figure 130**
 141. **Figure 131**
 142. **Figure 132**
 143. **Figure 133**
 144. **Figure 134**
 145. **Figure 135**
 146. **Figure 136**
 147. **Figure 137**
 148. **Figure 138**
 149. **Figure 139**
 150. **Figure 140**
 151. **Figure 141**
 152. **Figure 142**
 153. **Figure 143**
 154. **Figure 144**
 155. **Figure 145**
 156. **Figure 146**
 157. **Figure 147**
 158. **Figure 148**
 159. **Figure 149**
 160. **Figure 150**
 161. **Figure 151**
 162. **Figure 152**
 163. **Figure 153**
 164. **Figure 154**
 165. **Figure 155**
 166. **Figure 156**
 167. **Figure 157**
 168. **Figure 158**
 169. **Figure 159**
 170. **Figure 160**
 171. **Figure 161**
 172. **Figure 162**
 173. **Figure 163**
 174. **Figure 164**
 175. **Figure 165**
 176. **Figure 166**
 177. **Figure 167**
 178. **Figure 168**
 179. **Figure 169**
 180. **Figure 170**
 181. **Figure 171**
 182. **Figure 172**
 183. **Figure 173**
 184. **Figure 174**
 185. **Figure 175**
 186. **Figure 176**
 187. **Figure 177**
 188. **Figure 178**
 189. **Figure 179**
 190. **Figure 180**
 191. **Figure 181**
 192. **Figure 182**
 193. **Figure 183**
 194. **Figure 184**
 195. **Figure 185**
 196. **Figure 186**
 197. **Figure 187**
 198. **Figure 188**
 199. **Figure 189**
 200. **Figure 190**
 201. **Figure 191**
 202. **Figure 192**
 203. **Figure 193**
 204. **Figure 194**
 205. **Figure 195**
 206. **Figure 196**
 207. **Figure 197**
 208. **Figure 198**
 209. **Figure 199**
 210. **Figure 200**
 211. **Figure 201**
 212. **Figure 202**
 213. **Figure 203**
 214. **Figure 204**
 215. **Figure 205**
 216. **Figure 206**
 217. **Figure 207**
 218

ADD
ADD